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OM nucleic - nucleic search, using sw model

Run on: February 16, 2003, 16:42:40 : Search time 2277.41 Seconds
(without alignments)
15566.316 Million cell updates/sec

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Perfect score: 1410
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Gapop 10.0 , Gapext 1.0

Searched: 24791104 seqs, 12571243825 residues

Total number of hits satisfying chosen parameters: 49582208

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
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Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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5	782.6	55.5	1404	18	US-09-497-967-3
6	782.6	55.5	1404	18	US-09-498-612-8
7	138	9.8	138	18	US-09-497-967-74
8	123	8.7	123	18	US-09-497-967-75
9	105	7.4	117	18	US-09-497-967-70
10	104	7.4	104	18	US-09-497-967-71
11	100	7.1	100	18	US-09-497-967-72
12	100	7.1	100	18	US-09-497-967-79
13	99	7.0	99	18	US-09-497-967-76
14	95	6.7	95	18	US-09-497-967-73
15	95	6.7	95	18	US-09-497-967-77
16	95	6.7	95	18	US-09-497-967-82
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23 89 6.3 89 18 US-09-497-967-80 Sequence 80, Appl
c 24 86 6.1 95 18 US-09-497-967-87 Sequence 87, Appl
25 63.2 4.5 1326 18 US-09-497-967-1 Sequence 1, Appl
26 63.2 4.5 1326 18 US-09-498-612-7 Sequence 7, Appl
27 63.2 4.5 2486 18 US-09-497-967-2 Sequence 2, Appl
28 63.2 4.5 2811 18 US-09-498-612-3 Sequence 3, Appl
c 29 63.2 4.5 2811 18 US-09-498-612-4 Sequence 4, Appl
30 52.8 3.7 316 15 US-09-196-161D-9 Sequence 9, Appl
31 52.2 3.7 1193 3 US-07-763-352A-2 Sequence 2, Appl
32 52.2 3.7 1936 3 US-07-763-352A-14 Sequence 14, Appl
33 49.6 3.5 316 15 US-09-196-161-1 Sequence 1, Appl
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41 38.4 2.7 227949 75 US-60-313-371-2425 Sequence 269, App
42 38.2 2.7 936 23 US-09-604-693A-269 Sequence 13409, A
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c 45 37.4 2.7 605 61 US-60-173-469-859 Sequence 859, App

ALIGNMENTS

RESULT 1
US-09-497-967-102
; Sequence 102, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 102
; LENGTH: 1410
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: 55kd i-antigen coding region
US-09-497-967-102
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Best Local Similarity 100.0%; Pred. No. 0;
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RESULT 3
US-09-497-967-53
; Sequence 53, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHITHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497.967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 53
; LENGTH: 1404
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic G5
; OTHER INFORMATION: proline mutant i-antigen
US-09-497-967-53

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Best Local Similarity 99.9%; Pred. No. 0;
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; Sequence 44, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHITHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497.967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121

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: PRIOR FILING DATE: 1999-04-27
: PRIOR APPLICATION NUMBER: 60/118,634
: PRIOR FILING DATE: 1999-02-04
: PRIOR APPLICATION NUMBER: 60/122,372
: PRIOR FILING DATE: 1999-03-02
: PRIOR APPLICATION NUMBER: 60/124,905
: PRIOR FILING DATE: 1999-03-17
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: SOFTWARE: Patentin ver. 2.1
: SEQ ID NO 44
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: TYPE: DNA
: ORGANISM: Ichthyophthirius multifiliis
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Qy	781	TGTACCAACTGTCTCTAACTTCTACAAACAACCGCTCCTAACTTCAACCTTGGAAAC	840

Db	781	TGTACTAATGTGCTCCTAACTTTTACAATAATAATGCTCTCTAAATTTCAATCCAGGTAAT	840
Qy	841	TCTACTGTCTGCCTTGTCTGCTACAAAGGACTACGAGAGCTGAGGCTACCGCTGGAGGA	900
Db	841	AGTACATGCCTACCTTGCCTCCAGCAATTAAGATTATGGTGCTGAAGCCACTGCAGGTGGT	900
Qy	901	GCTGCTACCCCTGGCTAAGCAGTGAACATCGCTTGTCTGACGGAACCGCTATCGCTTCT	960
Db	901	GCCCTACTTTTAGCCAAATAATGTAATATGTGATGCCCTGATGGTACTGCAATTGCTAGT	960
Qy	961	GGAGCTACCAACTACGFTGCTTCGACAGCCGAGTGTCTGAACTGTGCTGCTAACTTCTAC	1020
Db	961	GGAGCAACTAATTATGTGAATATTATAACAGAAATGCTAAATTTGCTGCTAACTTTTAT	1020
Qy	1021	TTCCAGCGAAACAACCTTCCAGGCTGGATCTTCTCGCTGTAAAGGCTGTCCCTGCTAAACAAG	1080
Db	1021	TTTGATGGTAATAAATTTCTAGGCAGCAAGCTAGTAGATGCAAGAGCATGTCGAGCAATAAA	1080
Qy	1081	GTGCAGGAGCTGTGCTACCGCTGAGAGAACCGCTACCGTATCGCTCACTGTGCTGTG	1140
Db	1081	GTTTAAGCGCTGTAGCAACTGCAGTGTGACTGTCTACTTTAATTGCAATAATGTGCCCTT	1140
Qy	1141	GAGTGTCTCTGCTGGAACCGTGTGACCGACGGAACCACTCTACCTACCAAGCAGGCTCT	1200
Db	1141	GAATGCCCTGCTGCTACTGTACTACCGATGGAACAACATCTACTTATAATATAGCAGCA	1200
Qy	1201	TCTGAGTGTGTAAGTGTGCTGCTAACTTCTACACCACCAAGCAGACCGACTGGGTGGCT	1260
Db	1201	TCTGAATGTGTTAAATGTGCTGCCAACTTTTATACTACAAAATAAACTGATTGGGTAGCA	1260
Qy	1261	GGATCGACACCTGTACCTTGTGTACAGAGAGCTGACCTCTGAGCTGAGGCTGAACCTG	1320
Db	1261	GGTATTGATACATGTACTAGTTGTAAATAAAAAATTTAACTTCTGGCGCTGAAGCTAAATTA	1320
Qy	1321	CCTGAGTGTGCTAAGAAGAACATCCAGTGTGACTTCGCTAACTTCTCTGTCTATCTCTCTG	1380
Db	1321	CCTGAATCTGCTAAAAAAAATATATAATGTGATTTCGCTAATTTTTTATCAATTTCCCTTA	1380
Qy	1381	CTGCTGATCTCTTACTACCTGCTGTAAATAA	1410
Db	1381	TTATGATTCTTATTTATTTATTTATGATGA	1410

RESULT 5
 US-09-497-967-3
 ; Sequence 3, Application US/09497967
 ; GENERAL INFORMATION:
 ; APPLICANT: Clark, Theodore G.
 ; APPLICANT: Dickerson, Jr., Harry W.
 ; APPLICANT: Lin, Tian-Long
 ; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
 ; TITLE OF INVENTION: ICHTHYPHOTHIRIUS
 ; FILE REFERENCE: 235,00170101
 ; CURRENT APPLICATION NUMBER: US/09/497,967
 ; CURRENT FILING DATE: 2000-02-04
 ; PRIOR APPLICATION NUMBER: 60/131,121
 ; PRIOR FILING DATE: 1999-04-27
 ; PRIOR APPLICATION NUMBER: 60/118,634
 ; PRIOR FILING DATE: 1999-02-04
 ; PRIOR APPLICATION NUMBER: 60/122,372
 ; PRIOR FILING DATE: 1999-03-02
 ; PRIOR APPLICATION NUMBER: 60/124,905
 ; PRIOR FILING DATE: 1999-03-17
 ; NUMBER OF SEQ ID NOS: 102
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 3
 ; LENGTH: 1404
 ; TYPE: DNA
 ; ORGANISM: Ichthyophthirius multifiliis
 US-09-497-967-3

Query Match 55.5%; Score 782.6; DB 18; Length 1404;
Best Local Similarity 72.5%; Pred. No. 5.9e-210;

Query Match 55.5%; Score 782.6; DB 18; Length 1404;
Best Local Similarity 72.5%; Pred. No. 5.9e-210;

	Matches	1013;	Conservative	0;	Mismatches	384;	Indels	0;	Gaps	0;
Qy	1	ATGAAGAACAA	CATCTCGTGTGATCTCTGATCATCTCTCTGTTTCATCAACAGATCAAGTCT	60						
Db	1	ATGAAAAAT	ATATTTAGTAATATTTGATATTTCAATATTTATCAATTAATTAATCT	60						
Qy	61	GCTAACTGCTG	TGGGAACGAGACCAACCGGTGGACAGTGGAGACCTGGGAACC	120						
Db	61	GCTAAATGCTG	TGGGAACGAGACCAACCGGTGGACAGTGGAGACCTGGGAACC	120						
Qy	121	CCTGCTAACTG	TGTAAGTCTCAGAAAGATCTTACTACAAACAGCTGCTGCTTTCGTG	180						
Db	121	CCTGCAAAATG	TGTAATTTAGAAAAACITTTATATATATATGCTGCTTTCGTG	180						
Qy	181	CCTGGAGCTTCT	ACCTGTACCCCTTGTCTCAGAAAGACGCTGGAGCTCAGCCTAAC	240						
Db	181	CCTGGTGTAGT	ACGTTACACCTTGTCCATAAAAAAAGATGCTGGTGTTAACCAAT	240						
Qy	241	CCTCCTGCTAC	CCGCTAACCTGGTGACCCAGTGTACGTTGAAGTCTGCTGCTGGAAACGGT	300						
Db	241	CCACCTGCTACT	GCTCAATTTAGTTCACATAAATGTAACGTTAAATGCCCTGCTGGTACCGCA	300						
Qy	301	ATCGCTGAGAG	CTACCGACTACGCTGCTATCATCACCGAGTGTGTGAAGTGTGCGATC	360						
Db	301	ATTCCAGTGG	ACACAGATATATCGAGCAATTAATCAGAAATGTGTTAATTTGAGAATT	360						
Qy	361	AACTTTTACAG	CAGAACGCTCTCACTTCAACGCTGGAGCTTCTACCTGTACCGCTTGT	420						
Db	361	AAATTTTATAT	AGAAATGCTCCAAATTTTAATGGAGGTGCTACATGACACAGCTTGT	420						
Qy	421	CCTGTGAACG	CGTGGGAGAGCTGACCGCTGGAAACGCTGCTACCATCGTGGCTCAG	480						
Db	421	CCGTTAACAG	AGATGTTGTTGCTGCAITTTACTGCTGTTATGCCCTACCATGCGATAA	480						
Qy	481	TGTAACCTG	GTGCTTCAACCGAACCGCTCTGAGCAGCGAGTGACCAACGCTACGCTG	540						
Db	481	TGTAACGTC	GCATCTCTACTGCTACTGCTGCTGAACTTCTACTACAACGGAACCAACGA	600						
Qy	541	CGCTCTTTCAC	CGAGTGTGTGAAGTGTGCGCTGAACTTCTACTACAACGGAACCAACGA	600						
Db	541	AGATCTTTCAC	AGAAATGTTAATGTACACTTAATTTACTATATAGTGTAAATAGT	600						
Qy	601	AACACCCCTT	TCAACCTCGAAAGTCTCAGTGTACCCCTTGTCTGCTATCAAGCCTGCT	660						
Db	601	AATACTCCTT	CAATCCAGGTAAAAGTTAATGCACACCTTGTCCGGCAATTAACCTGCT	660						
Qy	661	ACGTGGCTC	AGGCTACCTTGGGAACGAGCTACCATCACCGCTCAGTGTAAAGCTGCT	720						
Db	661	AAATGTTGCT	TAAAGTACTTTAGGTAAATGATGTACAAATACCCGATATATGTAACGTGCA	720						
Qy	721	TGCTCTCAG	GAACCATCTCTGTGCTGGAGTGAACAACCTGGTGGCTCAGAACCCGAG	780						
Db	721	TGCCCTGAT	GCTACTATAAGTGTGCTGGAGTAAATTAATGGGTAGCAAAACACTGAA	780						
Qy	781	TGTACCACTG	TGCTCTCACTTACAAACAGCTCCTTAATTAACCCCTGGAAC	840						
Db	781	TGTACTAAT	TGTGCTCTCACTTTTACAATTAATGCTCCTAATTTCAATCCAGGTAAAT	840						
Qy	841	TCCTACTCTG	CTGCTTGTCTTCAACAGACTACGGAGCTGAGCTTACCGCTGGAGGA	900						
Db	841	AGTACATGC	CTACCTTGTCCCGACGAATTAAGATTATGGTCTGAAGCCACTGCAGTGGT	900						
Qy	901	GCTGTACCC	TGGCTAAGCAGTGTAAACGCTGTCTGTCGAGGAACCCGATATCGCTTCT	960						
Db	901	CGCGCTACT	TTTAGCCAAATATATGTAATTTGCATGGCCTGATGGTACTGCAATTTGCTAGT	960						
Qy	961	GGAGCTACCA	CTAGTGTATCTCGACGCCAGTGTCTGAAGTGTGCTGCTTAATTTCTAC	1020						
Db	961	GGAGCAACT	TAATTTATTAATTAATAACAGATATGCTAAATTTGCTGCTTAATTTAT	1020						
Qy	1021	TTTCACGGA	AAACAACTCCAGCGCTGATCTCTCTGCTGTGAAGCTTTGCTCTCAACAG	1080						
Db	1021	TTTGTAGT	GTAAATTTCTAGCGAGGAAGTATGATGTCAAGACATGTCCAGCAATAAA	1080						

QY	1081	GTGCAGGAGCTGTGGCTACCGCTGGAGGAACCGCTACCTCGATCGCTCAGTGTGCTCTG	1140
Db	1081	GTTTAAGCGCTGTAGCAACTGAGGTGGTACTTAAATGTCATAATGTGCGCCTT	1140
QY	1141	GAGTGTCTCTGTGGAACCGTGTGACCGAGGAACCACTCTTACCTACAGCAGGCTGCT	1200
Db	1141	GAATGCCCTGCTGTACTGCTACCTCACCAGATGGAACAACATCTACTTTATAATAAGCAGCA	1200
QY	1201	TCTGAGTGTGTGAAGTGTGCTTAACCTTCTACACCACCCRAGCAGACCGACTGGGTGGCT	1260
Db	1201	TCTGAATGTGTTAAATGTGTCGCCAATTTTATACTACAAAATAAATGATGGGTAGCA	1260
QY	1261	GGAATCAGACCTCTACTCTTGTGAACAAGAGCTGACCTCGAGCTGGAGCTGAACCTG	1320
Db	1261	GGTATTGATACATGTACTAGTTGTAATAAAAAAATAAATTTCTGGCGCTGAAGCTAAATTTA	1320
QY	1321	CCTGAGTGTGTAGAGAGACATCCAGTGTGACTTCGCTAACCTCCCTGCTATCTCTCTG	1380
Db	1321	CCTGAATCTGCTAAAAAATATATAATGTGATTCGCTAAATTTTTTATCAATTTTCCTTA	1380
QY	1381	CTGCTGATCTCTTACTA	1397
Db	1381	TTATTGATTTCTTATTA	1397
RESULT 6			
US-09-498-612-8			
; Sequence 8, Application US/09498612			
; GENERAL INFORMATION:			
; APPLICANT: GAERTIG, Jacek			
; APPLICANT: DICKERSON Jr., Harry W.			
; APPLICANT: CLARK, Theodore G.			
; APPLICANT: THE UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC			
; TITLE OF INVENTION: RECOMBINANT EXPRESSION OF HETEROLOGOUS NUCLEIC ACIDS IN			
; TITLE OF INVENTION: PROTOZOA			
; FILE REFERENCE: 235.00100101			
; CURRENT APPLICATION NUMBER: US/09/498,612			
; CURRENT FILING DATE: 2000-02-04			
; PRIOR APPLICATION NUMBER: 60/118,634			
; PRIOR FILING DATE: 1999-02-04			
; PRIOR APPLICATION NUMBER: 60/122,372			
; PRIOR FILING DATE: 1999-03-02			
; PRIOR APPLICATION NUMBER: 60/124,905			
; PRIOR FILING DATE: 1999-03-17			
; PRIOR APPLICATION NUMBER: 60/131,121			
; PRIOR FILING DATE: 1999-04-27			
; PRIOR APPLICATION NUMBER: PCT/US00/02966			
; PRIOR FILING DATE: 2000-02-04			
; NUMBER OF SEQ ID NOS: 14			
; SOFTWARE: PatentIn Ver. 2.0			
; SEQ ID NO 8			
; LENGTH: 1404			
; TYPE: DNA			
; ORGANISM: Ichthyophthirius multifiliis			
US-09-498-612-8			

Query Match	55.5%;	Score 782.6;	DB 18;	Length 1404;
Best Local Similarity	72.5%;	Pred. No. 5.9e-210;		
Matches 1013; Conservative	0;	Mismatches 384;	Indels 0;	Gaps 0

QY	1	ATGAAGAACAACTCCTGGTGATCCTGATCACTCTCTGTTCATCAACAGATCAAGTCT	60
Db	1	ATGAAAAAATAATTATTTAGTAATATTGATTATTTCAATTTAAATTAATCT	60
QY	61	GCTAACTGTCCTGTGGACCGAGACAACACCGCTGGACAGCTGGACGACCCTGGGAACC	120
Db	61	GCTAATTGTCCTGTGGACTGAACTTAACACACGCGGATAAGTTGATGATCTAGGAAC	120
QY	121	CCTGCCTAACTGTCTGAACCTGCAGAAGAACTTCTACTACAAACCGCTGCTGTTTCGTG	180
Db	121	GCTGCAAAAATCTCTTAATCTTAGAAAACTTTATATATAATAGTGTGCTGCTTTTCGTT	180

[illegible]

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Db      1261  GGTATTGATACGTACTAGTTGTAATAAAAAATTAACCTTCTGGCGCTGAAGCTAAATTTA 1320
QY      1321  GCTAGTCTGCTAAGAAGAACATCCAGCTGTGACTTCGCCTAACTTCCTGTCTATCTCTCTG 1380
Db      1321  CCTGAATCTGCTAAAAAATAATATATATGTGATTTCGCTAAATTTTATCAATTTCCCTTA 1380
QY      1381  CTGCTGATCTCTTACTA 1397
Db      1381  TTATTGATTCTTTATTA 1397

RESULT 7
US-09-497-967-74
; Sequence 74, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHITHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; PRIOR FILING DATE: 2000-02-04
; PRIOR FILING DATE: 1999-04-27
; PRIOR FILING DATE: 1999-02-04
; PRIOR FILING DATE: 1999-02-04
; PRIOR FILING DATE: 1999-03-02
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 74
; LENGTH: 138
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-74

Query Match          9.8%; Score 138; DB 18; Length 138;
Best Local Similarity 100.0%; Pred. No. 4.9e-28;
Matches 138; Conservative 0; Mismatches 0; Indels 0; Gaps

QY      313  GCTACCGACTACGCTGCTATCATCACCGAGTGTGTGAACCTGTCGCATCAACTTCTTACAAC 372
Db      1   GCTACCGACTACGCTGCTATCATCACCGAGTGTGTGAACCTGTCGCATCAACTTCTTACAAC 60
QY      373  GAGAACGCTCTTAACCTTCAACGCTGGAGCTTCTACCTGTACCGCTTGTCTGTGTGAACCGC 432
Db      61  GAGAACGCTCTTAACCTTCAACGCTGGAGCTTCTACCTGTACCGCTTGTCTGTGTGAACCGC 120
QY      433  GTGGGAGGAGCTCTGACC 450
Db      121  GTGGGAGGAGCTCTGACC 138

RESULT 8
US-09-497-967-75/c
; Sequence 75, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHITHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; PRIOR FILING DATE: 2000-02-04
; CURRENT APPLICATION NUMBER: 60/131,121

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; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 75
; LENGTH: 123
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-75

Query Match      8.7%; Score 123; DB 18; Length 123;
Best Local Similarity 100.0%; Pred. No. 8.2e-24; Indels 0; Gaps 0;
Matches 123; Conservative 0; Mismatches 0;

QY 430 CGCGTGGAGGAGCTCTGACCGCTGGAAAGCTGCTACCATCTGGCTCAGTGTAAAGTG 489
Db 123 CGCGTGGAGGAGCTCTGACCGCTGGAAAGCTGCTACCATCTGGCTCAGTGTAAAGTG 64
QY 490 GCTTGTCTACCGAAGCGCTCTGGAGCGGAGTGACCAAGCTACGTCGCTCTTTC 549
Db 63 GCTTGTCTACCGAAGCGCTCTGGAGCGGAGTGACCAAGCTACGTCGCTCTTTC 4
QY 550 ACC 552
Db 3 ACC 1

RESULT 9
US-09-497-967-70
; Sequence 70, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickinson, Jr., Harry W.
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 70
; LENGTH: 117
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-70

Query Match      7.4%; Score 105; DB 18; Length 117;
Best Local Similarity 100.0%; Pred. No. 9.9e-19;
Matches 105; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATCAAGACAACATCCTGGTGATCTGATCATCTCTGTTCATCAACACGATCAAGTCT 60
Db 13 ATGAAGACAACATCCTGGTGATCTGATCATCTCTGTTCATCAACACGATCAAGTCT 72

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QY 61 GCTAACTGCTCTGTGGAAACCGAGACCAACACCGCTGGACAGTG 105
Db 73 GCTAACTGCTCTGTGGAAACCGAGACCAACACCGCTGGACAGTG 117

RESULT 10
US-09-497-967-71/c
; Sequence 71, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickinson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 71
; LENGTH: 104
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-71

Query Match      7.4%; Score 104; DB 18; Length 104;
Best Local Similarity 100.0%; Pred. No. 1.8e-18;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 84 GACCAACACCGCTGGACAGTGGAGACCTGGAGACCCCTGCTAACTGTGTAAGTGA 143
Db 104 GACCAACACCGCTGGACAGTGGAGACCTGGAGACCCCTGCTAACTGTGTAAGTGA 45
QY 144 GAAGAATCTTCTACTACAACAGCTGCTGCTTTTCGTCCTGGAG 187
Db 44 GAAGAATCTTCTACTACAACAGCTGCTGCTTTTCGTCCTGGAG 1

RESULT 11
US-09-497-967-72
; Sequence 72, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickinson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 72

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; LENGTH: 100
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-72

Query Match
Best Local Similarity 7.1%; Score 100; DB 18; Length 100;
Matches 100; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 165 CGCTGCTGCTTTCGTGCTGAGCTTCTACCTGTACCCCTGTCTCAGAGAGACGC 224
Db 1 CGCTGCTGCTTTCGTGCTGAGCTTCTACCTGTACCCCTGTCTCAGAGAGACGC 60

QY 225 TGGAGCTCAGCTAACCTCTCTGCTACCGCTAACCTGGTG 264
Db 61 TGGAGCTCAGCTAACCTCTCTGCTACCGCTAACCTGGTG 100

RESULT 12
US-09-497-967-79/c
; Sequence 79, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR FILING DATE: 2000-02-04
; PRIOR FILING DATE: 1999-04-27
; PRIOR FILING DATE: 1999-02-04
; PRIOR FILING DATE: 1999-03-02
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 79
; LENGTH: 100
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-79

Query Match
Best Local Similarity 7.1%; Score 100; DB 18; Length 100;
Matches 100; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 753 GAACAACCTGGTGGCTCAGAACCCGAGTGACCAACTGTGCTCTCTCTCTCTCAACAA 812
Db 100 GAACAACCTGGTGGCTCAGAACCCGAGTGACCAACTGTGCTCTCTCTCTCTCAACAA 41

QY 813 CAACGCTCTTAACCTCAACCCCTGGAACCTTACCTGTCTG 852
Db 40 CAACGCTCTTAACCTCAACCCCTGGAACCTTACCTGTCTG 1

RESULT 13
US-09-497-967-76
; Sequence 76, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF

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; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 76
; LENGTH: 99
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-76

Query Match
Best Local Similarity 7.0%; Score 99; DB 18; Length 99;
Matches 99; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 532 GACTACGTGCGCTCTTTCACCGAGTGTGTGAAGTGTGCTGAACCTTCTACTACACGGA 591
Db 1 GACTACGTGCGCTCTTTCACCGAGTGTGTGAAGTGTGCTGAACCTTCTACTACACGGA 60

QY 592 AACACGGAAACACCCCTTTCACCTGGAAGTGTCTCAG 630
Db 61 AACACGGAAACACCCCTTTCACCTGGAAGTGTCTCAG 99

RESULT 14
US-09-497-967-73/c
; Sequence 73, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 73
; LENGTH: 95
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-73

Query Match
Best Local Similarity 6.7%; Score 95; DB 18; Length 95;
Matches 95; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 242 CTCCTGCTACCGCTAACCTGGTGACCCAGTGTAAAGTGTCTGCTGGAACCGCTA 301

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